# Weekly Report

2015 Week 49 (December 6 - December 12) through 2016 Week 49 (December 4 - December 10)

Department of Health and Human Services
Division of Public and Behavioral Health
Office of Public Health Informatics and Epidemiology



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Data for the graphs and tables on the following pages are provisional and may be updated as additional information becomes available.

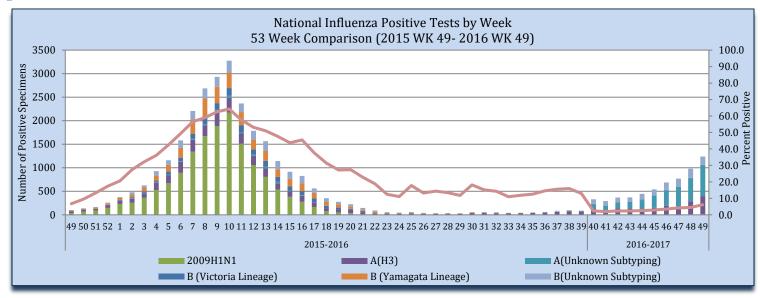
### **Purpose**

The purpose of this report is to provide an overview of and statistics for the influenza season in Nevada for the local public health authorities, sentinel providers and the public.

## Sentinel Provider Data: Influenza-Like Illness Network Surveillance (ILINet)

Respiratory specimens are tested for influenza by the World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NRVESS) collaborating laboratories by sub-type. During week 49, there were 20,183 specimens collected and tested for influenza, of those 1,239 were positive (6.1%).

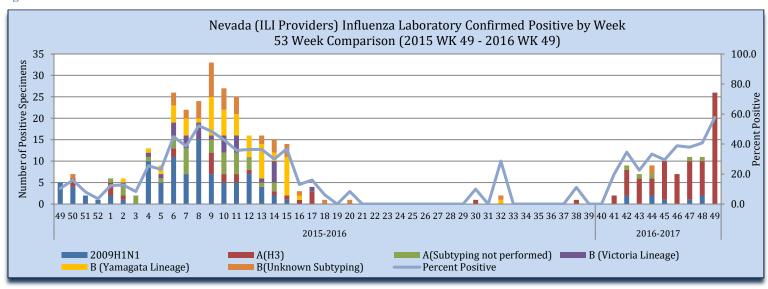
Figure 1



Source of Data: CDC: FluView Weekly Report.

The Nevada total includes laboratory tests for all Nevada residents tested by sentinel providers including out of state laboratories. During week 49, there were 45 specimens collected and 26 were positive (57.8%).

Figure 2



Source of Data: CDC: ILINet.

Nevada State Public Health Laboratory (NSPHL) has tested 102 specimens for influenza from sentinel providers, of which there have been 83 positive (81.4). Southern Nevada Public Health Laboratory (SNPHL) has tested 33 specimens this season of which there have been 0 positives. Nationally, there have been 175,655 specimens sent to the WHO and NERVSS laboratories of which 6,019 have been positive (3.4%). The national numbers in Table 1 are reflected in Figure 1. The state of Nevada data in Table 1 is reflected in Figure 2. The Nevada total includes laboratory test for all Nevada residents tested by sentinel providers, including out of state laboratories.

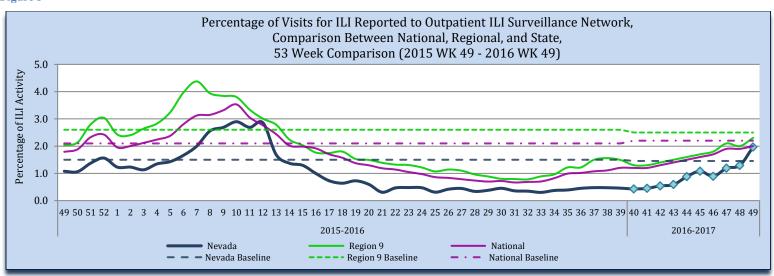
Table 1

|                              | Influenza Specimens Tested State and Nationally through Sentinel Providers |       |                              |    |                                 |     |                             |        |                       |         |                      |  |
|------------------------------|--|-------|------------------------------|----|---------------------------------|-----|-----------------------------|--------|-----------------------|---------|----------------------|--|
|                              | NSPHL  | SNPHL | All Other SNPHL Laboratories |    | State of<br>Nevada<br>(Week 49) |     | State of Nevada<br>(Season) |        | National<br>(Week 49) |         | National<br>(Season) |  |
|                              |  |       |                              | #  | %                               | #   | %                           | #      | %                     | #       | %                    |  |
| Specimens Tested             | 102  | 33    | 120                          | 45 |                                 | 255 |                             | 20,183 |                       | 175,655 |                      |  |
| Influenza Positives          | 83   | 0     | 9                            | 26 | 57.8                            | 92  | 36.1                        | 1,239  | 6.1                   | 6,019   | 3.4                  |  |
|                              |  |       |                              |    |                                 |     |                             |        |                       |         |                      |  |
| <u>Influenza A:</u>          | 83   | 0     | 7                            | 26 | 100                             | 90  | 97.8                        | 1,051  | 84.8                  | 4,615   | 76.7                 |  |
| A (2009 H1N1)                | 7  | 0     | 1                            | 0  | 0.0                             | 8   | 8.9                         | 10     | 1.0                   | 95      | 2.1                  |  |
| A (H3)                       | 76   | 0     | 1                            | 26 | 100                             | 77  | 85.6                        | 387    | 36.8                  | 1,652   | 35.8                 |  |
| A (Sub-typing not performed) | 0  | 0     | 5                            | 0  | 0.0                             | 5   | 5.6                         | 654    | 62.2                  | 2,868   | 62.1                 |  |
|                              |  |       |                              |    |                                 |     |                             |        |                       |         |                      |  |
| <u>Influenza B:</u>          | 0  | 0     | 2                            | 0  | 0.0                             | 2   | 2.6                         | 188    | 15.2                  | 1,404   | 23.3                 |  |
| B (Victoria Lineage)         | 0  | 0     | 0                            | 0  | 0.0                             | 0   | 0.0                         | 9      | 4.8                   | 62      | 4.4                  |  |
| B (Yamagata Lineage)         | 0  | 0     | 0                            | 0  | 0.0                             | 0   | 0.0                         | 5      | 2.7                   | 42      | 3.0                  |  |
| B (Sub-typing not performed) | 0  | 0     | 2                            | 0  | 0.0                             | 2   | 100                         | 174    | 92.6                  | 1,300   | 92.6                 |  |

Source of Data: CDC: FluView Report and CDC: ILINet.

Influenza-like Illness (ILI) Surveillance Network has each sentinel provider report the number of patients seen that meet the ILI case definition and the total number of patients seen for any reason each week. The "percentage of visits for ILI" is the number of ILI patients divided by the total number of patients visit per week. Nevada's percentage of ILI visits for week 49 is 2.0% which is above the state baseline of 1.5%. Region 9 ILI percentage for week 49 is 2.3% which is below the region baseline 2.5%. Region 9 includes the following states/territory: Arizona, California, Guam, Hawaii, and Nevada. The national ILI percentage for week 49 is 2.0% which is below the national baseline 2.2%.

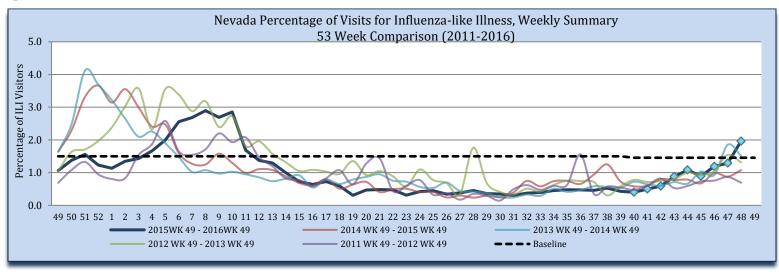
Figure 3



Source of Data: CDC: Flu View Report and CDC: ILINet.

During week 49, 2.0% of visits to sentinel providers were due to ILI; this is higher than the 2015-2016 influenza season (1.1%). There were 16,699 patients seen by sentinel providers during week 49, of which 328 patients presented with ILI; week 49 of 2015, there were 188 patients seen with ILI (17,444 total patients seen).

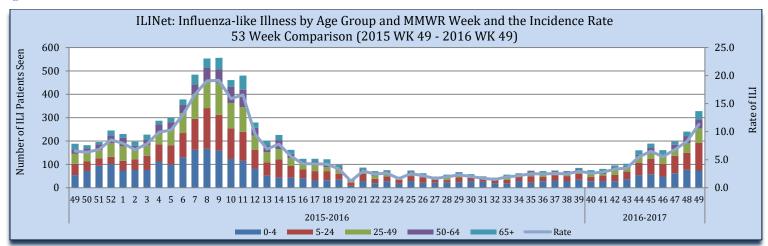
Figure 4



Source of Data: CDC: ILINet.

Influenza-like Illness is reported by age groups. During week 49, patients age 5-25 were the greatest number of patients seen with ILI, at 118 patients seen. The rate for week 49 is 11.3 per 100,000 population. The rate is calculated by the number of patients presented with ILI, divided by the state population, multiplied by 100,000. The estimated state population for 2016 is 2,902,853.

Figure 5



Source of Data: CDC: ILINet.

# Influenza Positive Surveillance (NBS and NETSS)

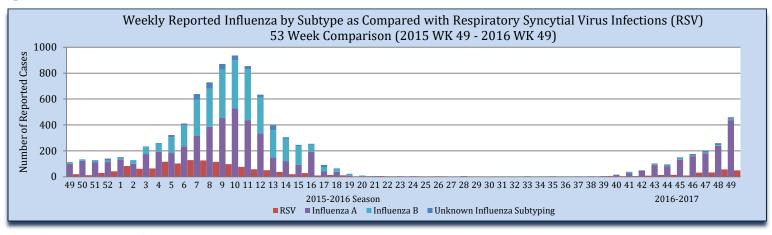
Positive cases of influenza are reported to the state health authority for surveillance purposes. Table 2 and Figure 6 reflect all positive influenza cases reported to the state. Types of influenza testing include commercial rapid diagnostic test (rapid), viral culture, fluorescent antibody, enzyme immunoassay, RT-PCR (PCR), and Immunohistochemistry. The two most common test types in Nevada are Rapid and PCR tests. During week 49, there were 460 influenza cases reported to the state, 438 influenza A, 9 influenza B and 13 unknown.

Table 2

|                                       | Reported Influenza Cases by County Jurisdiction and Influenza Type |   |         |       |                             |    |         |       |  |  |
|---------------------------------------|--|---|---------|-------|-----------------------------|----|---------|-------|--|--|
| Reporting Jurisdiction                | Current Week (Week 49)   |   |         |       | Cumulative Influenza Season |    |         |       |  |  |
|                                       | A  | В | Unknown | Total | A                           | В  | Unknown | Total |  |  |
| Carson City Health and Human Services | 124  | 0 | 0       | 124   | 247                         | 0  | 2       | 249   |  |  |
| Rural Community Health Services       | 19   | 0 | 2       | 21    | 165                         | 8  | 11      | 184   |  |  |
| Southern Nevada Health District       | 78   | 5 | 0       | 83    | 280                         | 28 | 17      | 325   |  |  |
| Washoe County Health District         | 217  | 4 | 11      | 232   | 722                         | 17 | 54      | 793   |  |  |
| State of Nevada                       | 438  | 9 | 13      | 460   | 1,413                       | 53 | 84      | 1,550 |  |  |

Source: OPHIE: NBS and SNHD: NETSS.

Figure 6



Source of Data: OPHIE: NBS and SNHD: NETSS.

## Hospitalizations

There were 43 hospitalization associated with influenza reported to the state health authority for week 49.

Table 3

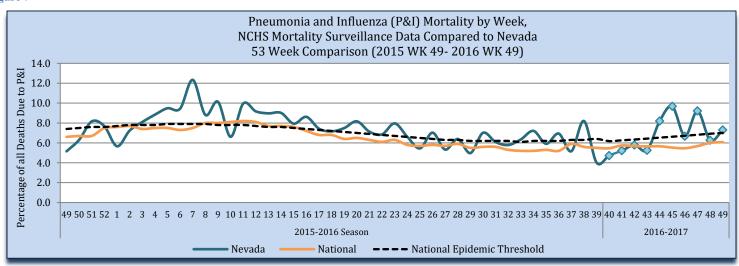
| Influenza Hospitalizations            |              |             |                             |      |  |  |  |  |
|---------------------------------------|--------------|-------------|-----------------------------|------|--|--|--|--|
| Deporting Invigdication               | Current Weel | k (Week 49) | Cumulative Influenza Season |      |  |  |  |  |
| Reporting Jurisdiction                | #            | %           | #                           | %    |  |  |  |  |
| Carson City Health and Human Services | 1            | 2.3         | 3                           | 2.3  |  |  |  |  |
| Rural Community Health Services       | 0            | 0.0         | 1                           | 0.8  |  |  |  |  |
| Southern Nevada Health District       | 12           | 27.9        | 43                          | 32.3 |  |  |  |  |
| Washoe County Health District         | 30           | 69.8        | 86                          | 64.7 |  |  |  |  |
| State of Nevada                       | 43           | 100         | 133                         | 100  |  |  |  |  |

Source: Reported to Office of Public Health Informatics and Epidemiology from each Jurisdiction.

# Pneumonia and Influenza (P&I) Mortality Surveillance

The Pneumonia and Influenza (P&I) mortality percentage is all deaths, where Pneumonia or Influenza is listed as the underlying or contributing cause of death, divided by the total deaths in Nevada for each week. As of January 3<sup>rd</sup>, there were 29 P&I deaths and 398 total deaths for week 49 in Nevada. The P&I mortality percent for Nevada is at 7.3%, above the national threshold (7.0%). Nationally, the P&I mortality percent was 6.1% week 49.

Figure 7



Source: OVR: WEVRRS and CDC: FluView.

#### **Technical Notes**

- Data are subject to changes, additionally, there is a lag in reporting.
- Influenza surveillance procedures vary by jurisdiction.
- Influenza-like illness (ILI): a fever greater than or equal 100°F with cough and/or sore throat.
- Percent positive: The number of positive influenza laboratory tests divided by the total number of tests performed.
- Incidence rate is per 100,000 population as estimated by the state demographer.

This report contains information from national and state-level data sources. Influenza surveillance data is collected by a various systems, including:

- Influenza-like Illness Network (ILINet): a sentinel surveillance system in collaboration with the Centers for the Disease Control and Prevention (CDC) where outpatient providers report ILI information weekly.
- National Electronic Telecommunication System for Surveillance (NETSS): a system whereby data is transmits to CDC. Influenza data collected through NETSS does not provide influenza sub-typing information.
- National Electronic Disease Surveillance System (NEDSS): a system for collecting data and monitoring disease trends and outbreaks.
- NEDSS Based System (NBS): an implementation of the NEDSS standards. It provides a secure, accurate, and efficient means of collecting, transmitting, and analyzing public health data.

#### **Citations**

- 1. CDC. FluView: A Weekly Influenza Surveillance Report. http://www.cdc.gov/flu/weekly/pastreports.htm.
- 2. Nevada State Demographer's Office. 2003-2020 ASRHO Estimates and Projections. Division of Public and Behavioral Health edition. Vintage 2015.
- 3. OPHIE. DPBH. NBS. 2015-2016. Accessed January 2017.
- 4. Office of Vital Records (OVR). DPBH. Web Enabled Vital Records Registry System (WEVRRS) [unpublished data]. 2015-2016. Accessed January 2017.
- 5. Southern Nevada Health District (SNHD). NETSS/Trisano. 2015-2016. Accessed January 2017.

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